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## (54) APPARATUS FOR OXIDATION AND REDUCTION TREATMENT

(57) Abstract:

PURPOSE: To reduce the armt of chemicals to be used and to improve the efficiency of the treatment by providing an operating part for operating the armt of a neutralizing chemical to be injected into a reaction vessel, and the armt of oxidizing and reducing agent and a controlling part for controlling a means for injecting the chemicals basing on the results operated by the operating part.

CONSTITUTION: A value of pH of waste water measured by a pH meter 6 is inputted to an operating part 11a where the amt. of specified acid or alkali is operated from an already inputted titration curve for adjusting pH. For carrying out oxidation or reduction reaction, present oxidation-reduction potential of the waste water obtd. by an oxidation-reduction potential meter (ORP meter) 7 is inputted to an operating part 11a. Whether an oxidizing agent is to be injected or a reducing agent is to be injected, is decided from its potential, and the amt. of the agent to be used id decided. A slightly less amt. than the decided value is cutputted from the controlling part 11b to an automatic valve  $V_5$ , and the automatic valve  $V_5$  is held open for a necessary time. The potential of the waste water is detected by the ORP

meter again and above described procedure is repeated once or twice. When the potential attains thus a specified value, the automatic valve  $V_5$  is closed and the reaction is finished.

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